

Sudan University of Science & technology

College of Graduate Studies

**Potassium level in patients with
cholestatic Jaundice in Khartoum
state**

**تركيز البوتاسيوم عند المصابين
باليرقان ألامسدادي في ولاية الخرطوم**

*A thesis Submitted to Sudan University of Science and Technology
in partial fulfillment for the requirement of the degree of MSc. in
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Dedication

To My Father

To My Mother

To My Family

To My Friends

Acknowledgment

Thanks are first and last due to God who enables me to conduct the study by the grace of him, and gave me strength and patience.

Grate thanks to ustaz Tawfig Khogali for his patient and supervision of this thesis.

Words can never express my feeling towards every one who stood beside me in conducting this research.

Thanks are extended to my family, to my friend Selma, ustaz Adel amen and great thanks to the staff of Ibn Siena and Soba Hospitals.

Abstract

This study was conducted in patients from Ibn siena and Soba hospitals, Khartoum -Sudan during the period from 20th November to 18th January, fifty Sudanese patients with obstructive jaundice aged (16-90 yrs), mean \pm SD(47 ± 19), (fifty percent were males) were included in this study as case group. Fifty apparently healthy volunteers were included in this study as control group.

In this study plasma bilirubin and plasma potassium level were measured in 50 patients with obstructive jaundice and 50 normal subjects as controls. Plasma bilirubin was measured with Jendrassik-grof method, and plasma potassium was measured by flame photometry.

In patient group, plasma bilirubin level was found to be high and significantly higher than in control group and than normal value due to obstruction that stops the passage of bilirubin.

Potassium level in patients group was found to be lower than in control group and the difference were statistically significant. Most probably, this is due to the effect of obstructive jaundice in renal tubular functions.

ملخص الدراسة

أجريت هذه الدراسة في مستشفى ابن سينا ومستشفى سوبا الخرطوم - السودان في الفترة من (20 نوفمبر 2008 إلى 18 يناير 2009) وفيها تم قياس البيلروبين (بكل أنواعه) البوتاسيوم في 50 شخص مصابين باليرقان الانسدادي كمجموعة الدراسة تتراوح أعمارهم بين (16-90 سنة) و 50% منهم ذكور.

وتم أيضا قياس البيلروبين (بكل أنواعه) البوتاسيوم في 50 شخص أصحاء كمجموعة مقارنه .

تم قياس البيلروبين بطريقة (jenderassic-grof method) و تم قياس البوتاسيوم بطريقة (flame phometry).

في مجموعة الأشخاص المصابين وجد أن تركيز البيلروبين مرتفع عن المعدل الطبيعي و معدل الأشخاص الأصحاء, نتيجة للانسداد الذي يؤدي لمنع مرور البيلروبين للتخلص منه.

بينما وجد أن تركيز البوتاسيوم في مجموعة المصابين باليرقان الانسدادي منخفض مقارنة بمجموعة الأشخاص الأصحاء وكان الفرق ذا دلالة إحصائية وغالبا ما يكون نتيجة لتأثير اليرقان الانسدادي على وظيفة الأنابيب الكلوية.

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